



XML Topic Maps & XTM Navigator

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Charting the Course

- Topic Maps Introduction
- XML Topic Maps (XTM)
- XTM Navigator



What is a Topic Map?

“A collection of topics and their semantic relationships”.



The “TAO” of Topic Maps¹

- Topics
- Associations
- Occurrences

1 Steve Pepper, “The TAO of Topic Maps, finding the Way in the Age of XML”,
<http://www.gca.org/papers/xml europe2000/papers/s11-01.html>



What is a Topic?

Any “thing” whatsoever

Examples:

- The Statue of Liberty
- William Shakespeare
- Dante’s Inferno



What is a Topic Type?

A category of topics.

Examples:

- Mexico and Bolivia are *instances of* **“country”**
- Macbeth and Othello are *instances of* **“play”**



What is an Association?

A semantic relationship between two topics.

Examples:

- Dante **wrote** The Inferno
- Ferdinando Fontana **was born in** Milano, Italy



Associations are Multi-Directional.

Dante **wrote** The Inferno ↔ The Inferno **was written by** Dante

Bob **opened** the door ↔ The door **was opened by** Bob



What is an Occurrence?

A link to a related information resource.

Occurrence examples for topic “Bolivia”:

- Map of South America
- Bolivian soccer photo
- See page 34.



What are XMLTopic Maps?

They are Topic Maps...

XML style!



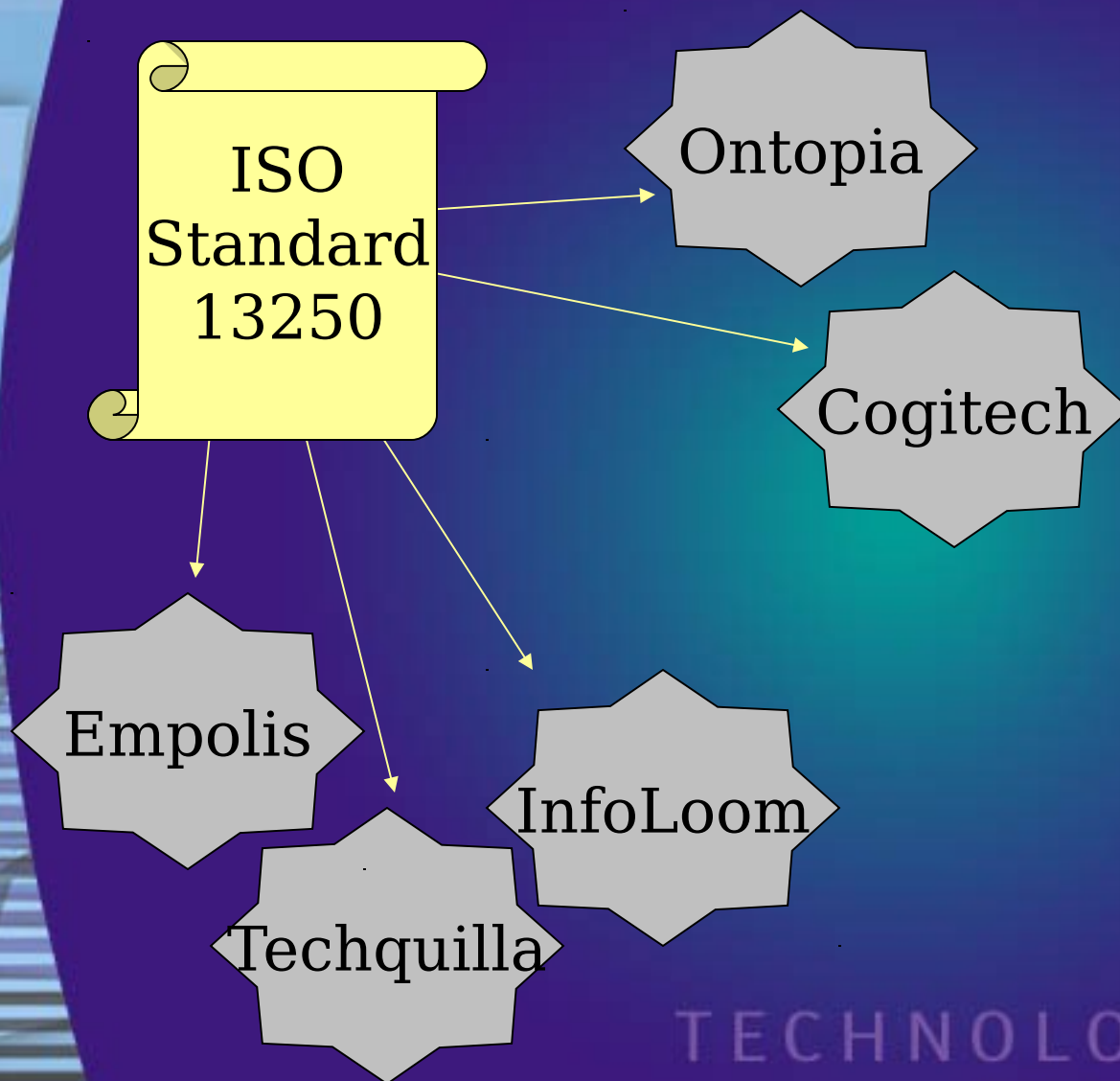
Based on ISO Standard

- ISO/IEC CD CD 13250

<http://www.ornl.gov/sgml/wg8/document/1937.htm>

- Does *not* define an XML DTD.

Initial XTM DTD Implementations





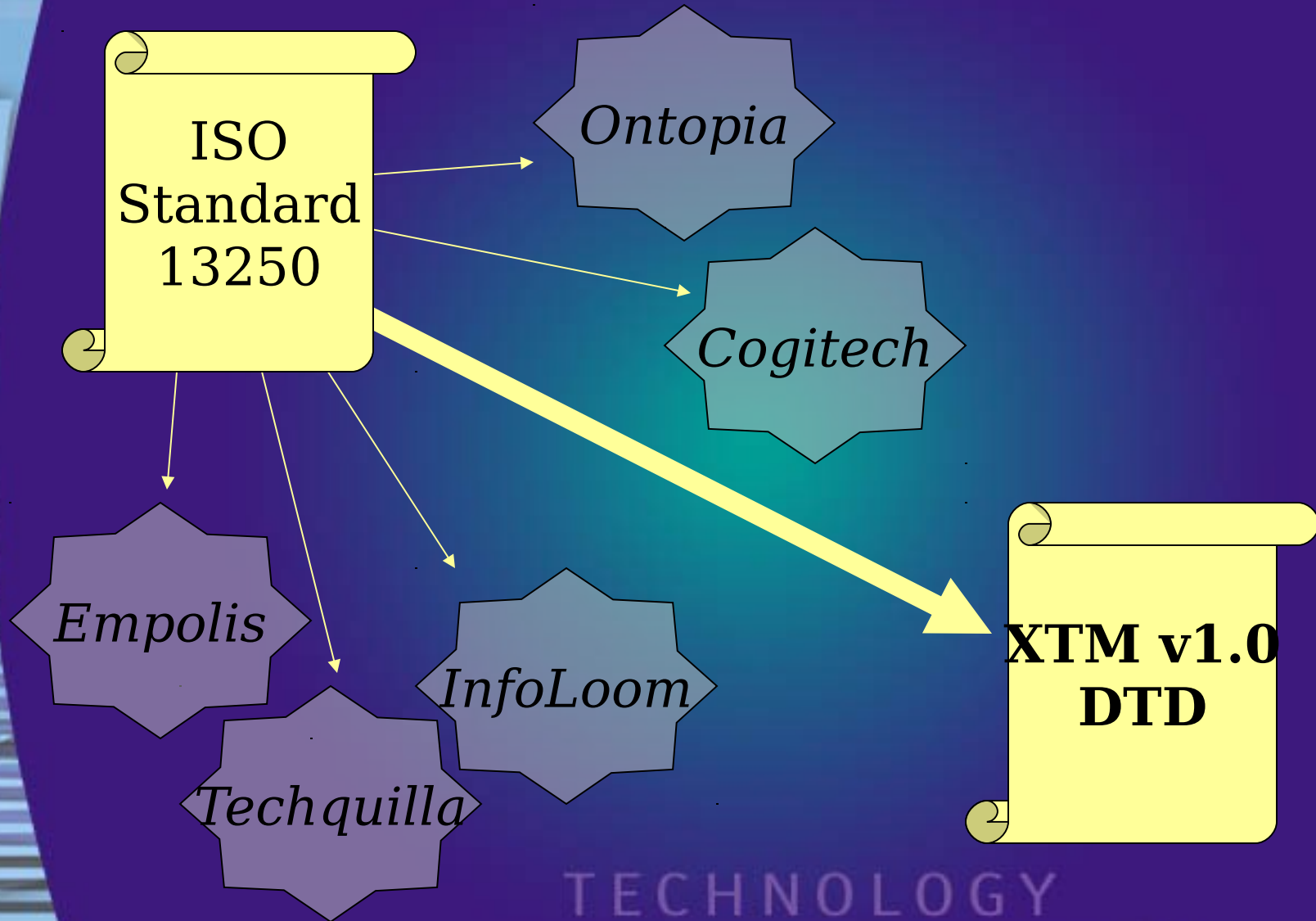
XTM v1.0 Specification

- Standardized by XTM Authoring Group

<http://www.topicmaps.org/xtm/1.0/>

- November 2000
- Supersedes prior DTDs:
 - Cogitech, Empolis, InfoLoom, Ontopia, Techquilla

XML Authoring Group Standard



TECHNOLOGY

WITH A PURPOSE



XTM Navigator v1.0

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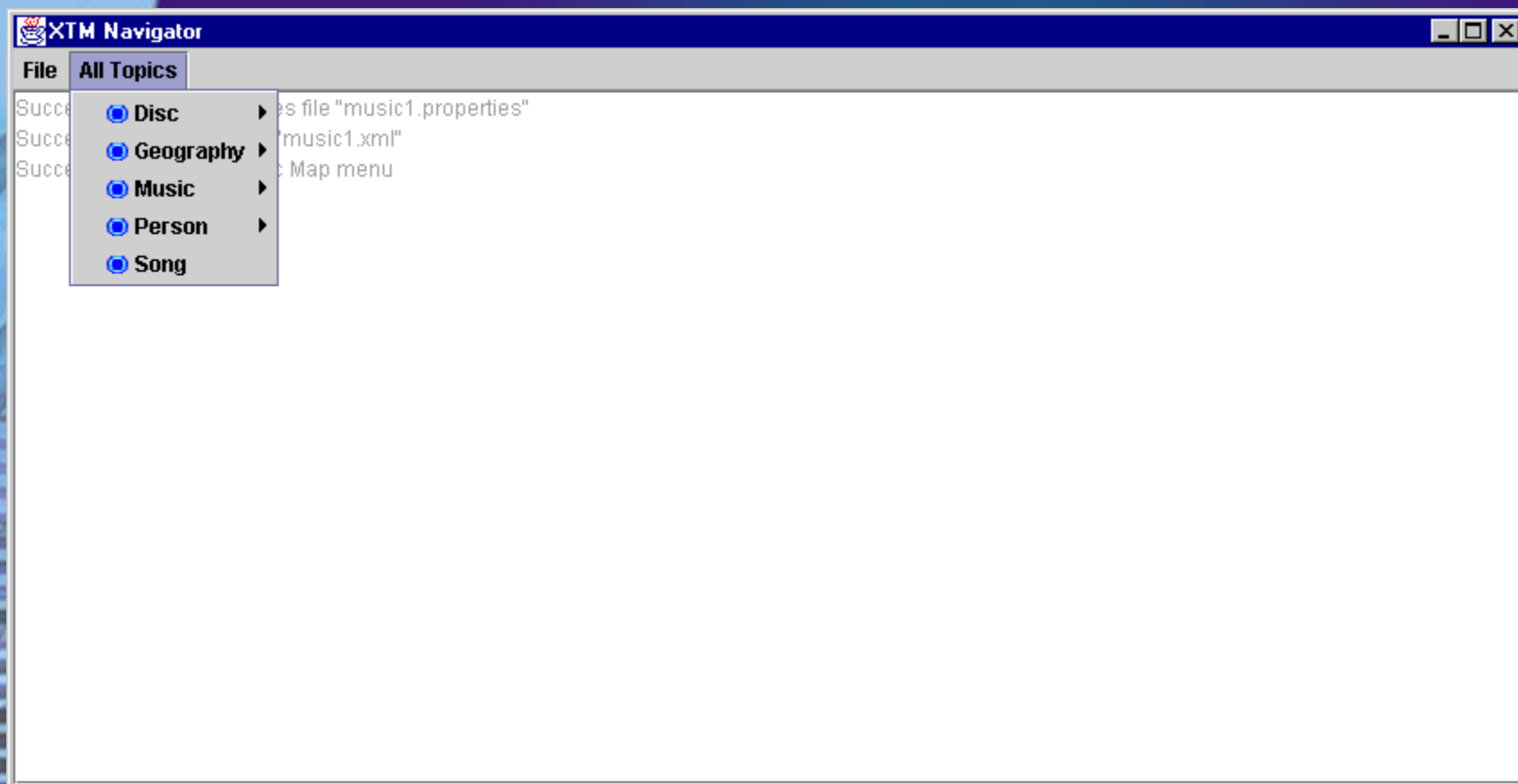


XTM Navigator

- Graphically navigates XTM files.
- Documented API
- Configurable with Properties File
 - Top level topics
 - Short, Medium, Long names
 - “Scoping”

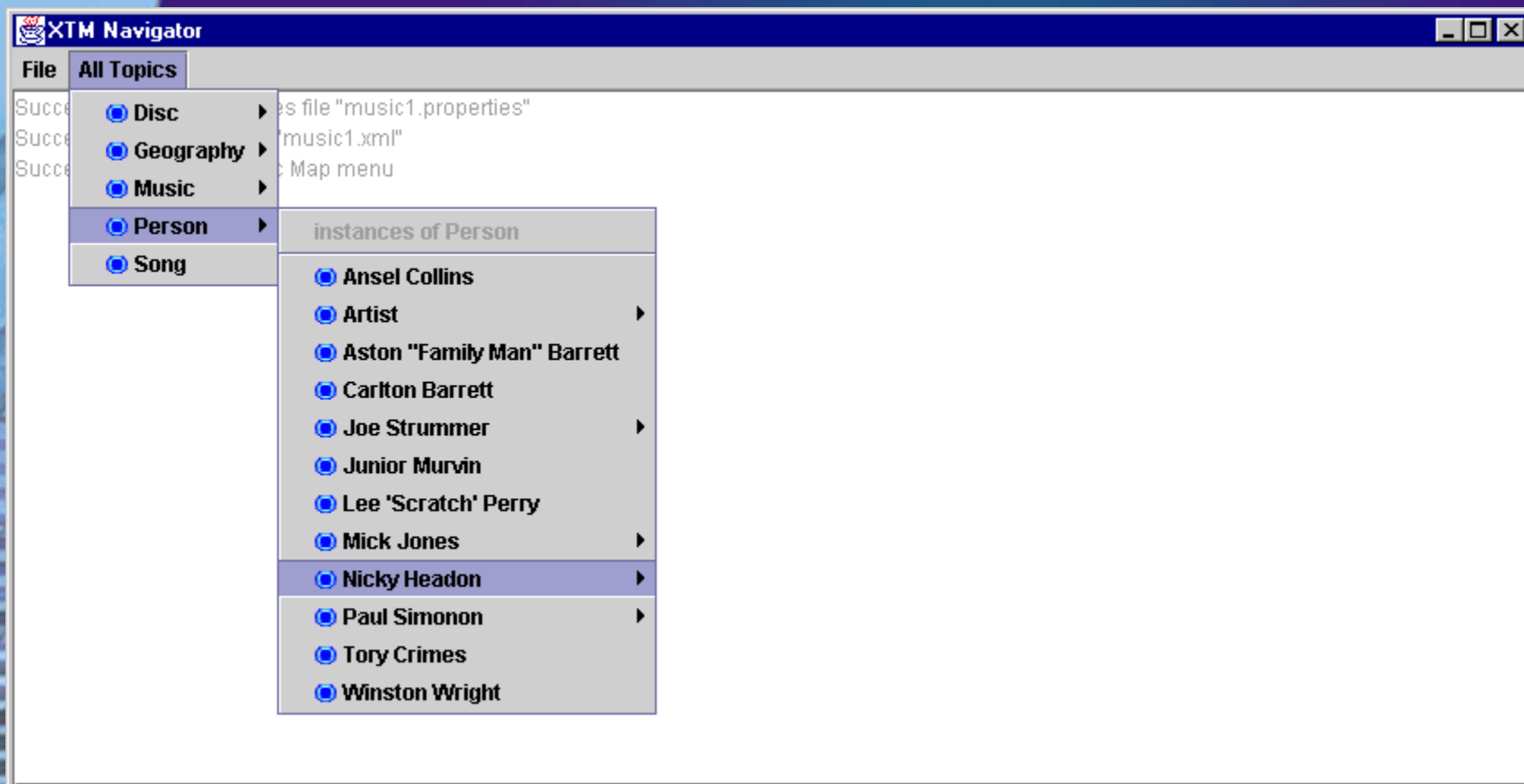


Top Level Topic Types



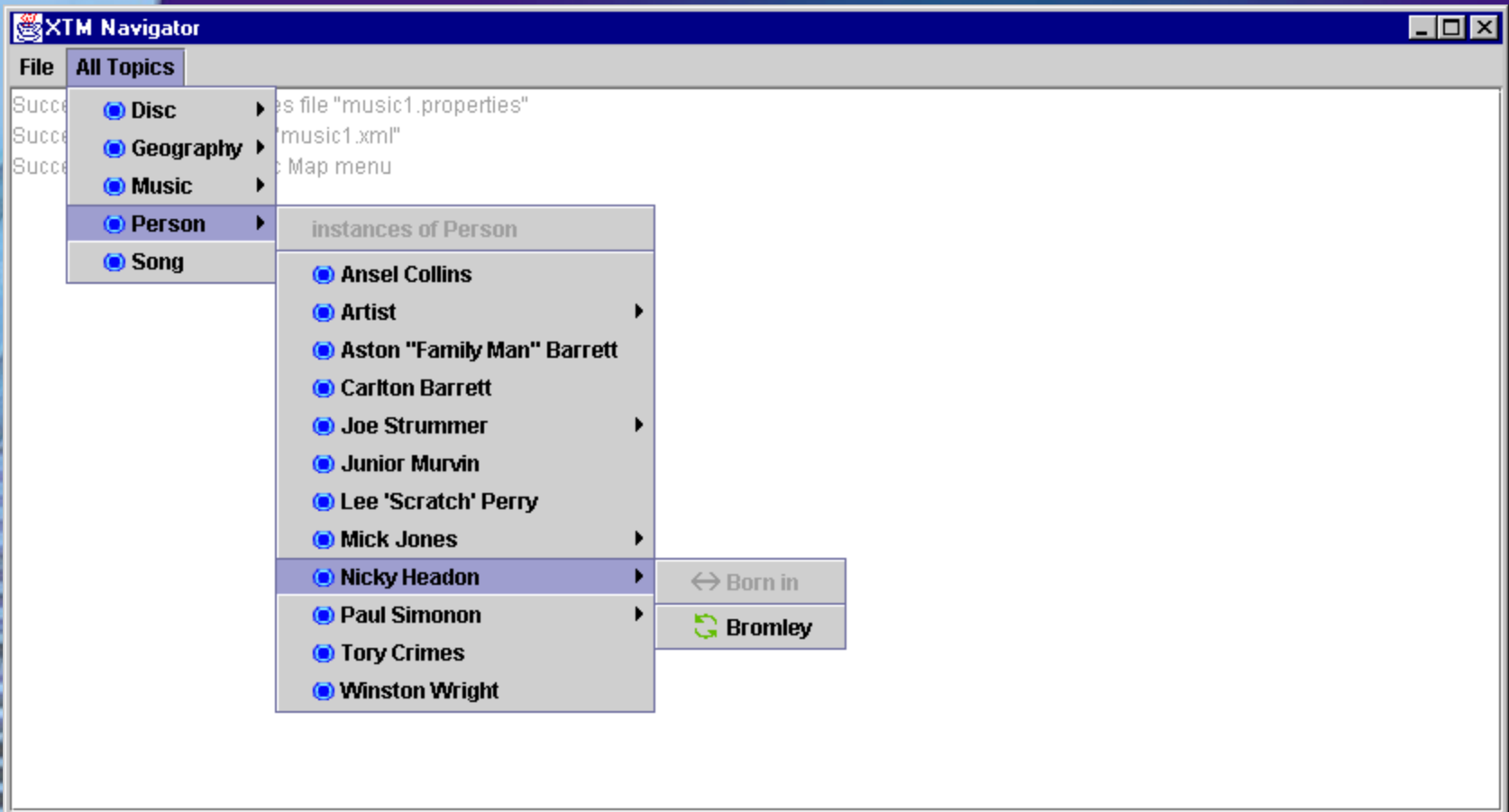


Topic Instances





Associations

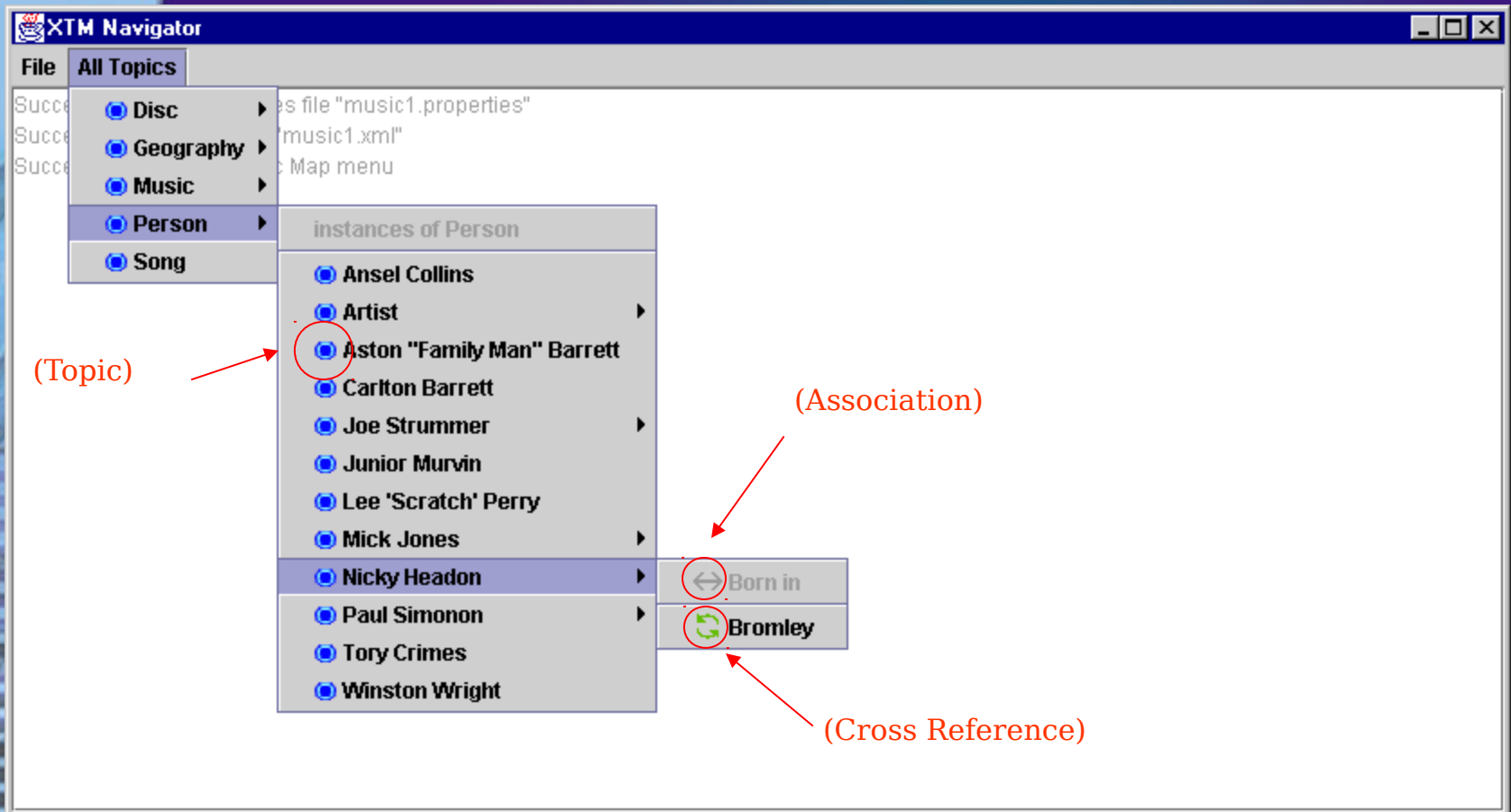


The screenshot shows the XTM Navigator application window. The 'All Topics' tab is selected, and the 'Person' topic is expanded. The 'instances of Person' list includes several names, with 'Nicky Headon' selected. To the right of the list, there are two buttons: 'Born in' and 'Bromley'.

Topic	Instances	Association
Disc	es file "music1.properties"	
Geography	music1.xml"	
Music	c Map menu	
Person	instances of Person	
Song		
	Ansel Collins	
	Artist	
	Aston "Family Man" Barrett	
	Carlton Barrett	
	Joe Strummer	
	Junior Murvin	
	Lee 'Scratch' Perry	
	Mick Jones	
	Nicky Headon	↔ Born in
	Paul Simonon	↻ Bromley
	Tory Crimes	
	Winston Wright	



Different Icons

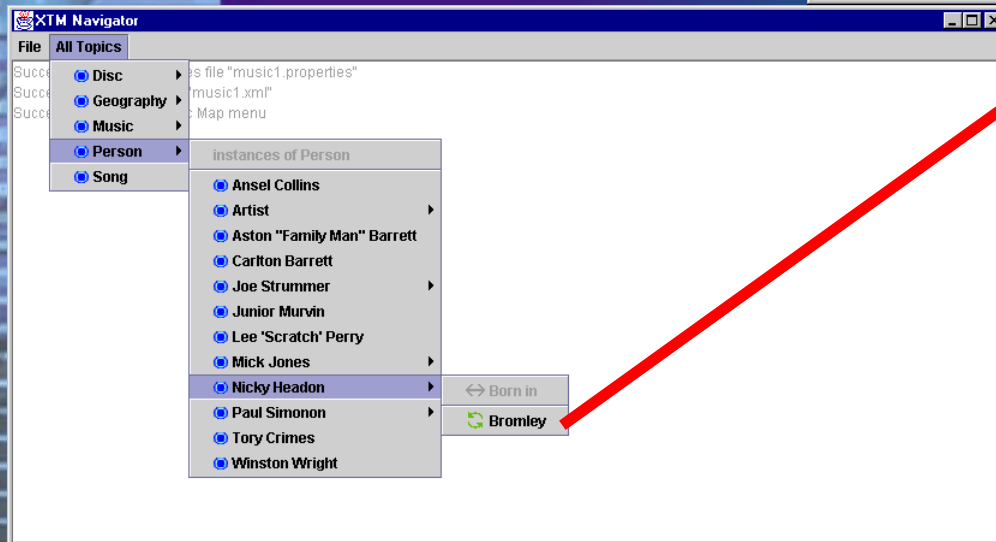
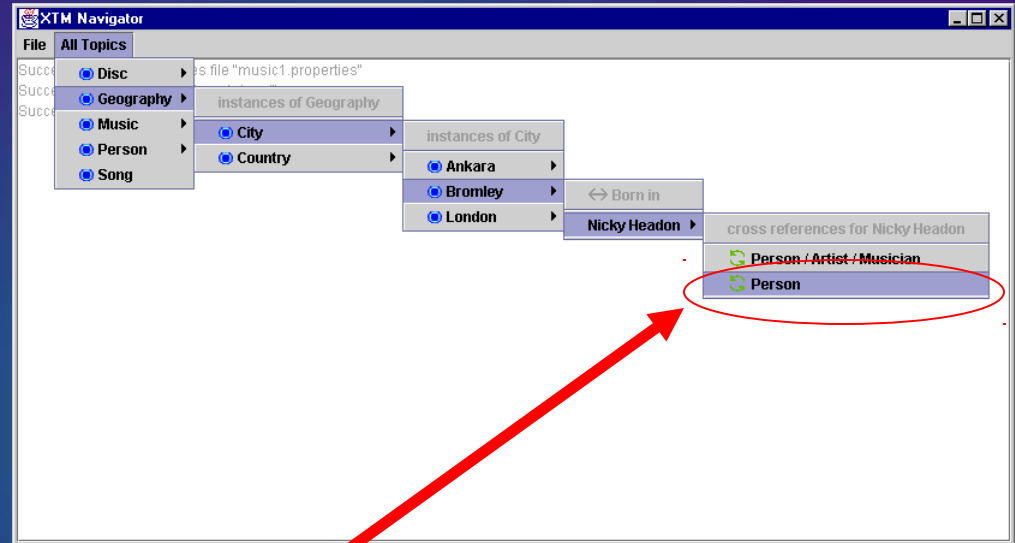


The screenshot shows the XTM Navigator application window. The 'All Topics' pane on the left displays a hierarchical tree structure. The 'Person' topic is expanded, showing a list of instances. The 'Aston "Family Man" Barrett' instance is circled in red, with a red arrow pointing to it from the label '(Topic)'. The 'Born in' association is circled in red, with a red arrow pointing to it from the label '(Association)'. The 'Bromley' cross-reference is circled in red, with a red arrow pointing to it from the label '(Cross Reference)'.

Topic	Instance	Association	Cross Reference
Disc			
Geography			
Music			
Person	instances of Person		
Song			
	Ansel Collins		
	Artist		
	Aston "Family Man" Barrett		
	Carlton Barrett		
	Joe Strummer		
	Junior Murvin		
	Lee 'Scratch' Perry		
	Mick Jones		
	Nicky Headon	← Born in	
	Paul Simonon		↻ Bromley
	Tory Crimes		
	Winston Wright		



Cross References

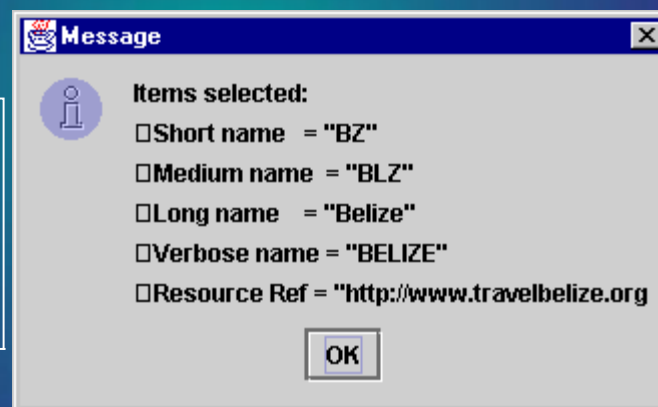


XTM Navigator will
jump to cross
reference when
“Bromley” is clicked.



Topic Selection

Selecting “Belize”
from the Country
Topic Map.





XTM Navigator Demo

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Questions?



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